Catalog Description
Software requirements analysis, including structured analysis methodology. Behavioral and nonbe-
havioral aspects of software specification. Development of specification. Development of specifi-
cation documents. High-level design and software architecture.

Course Objectives
Students should understand the nature of software requirements and ways in which a requirements
document might be organized and developed. Working in teams, students will undertake the prepa-
ration of a requirements document for a substantial piece of software and explore high-level design
options for implementation.

Prerequisites
CIS 275 and either CIS 351 or CSE 382.

Course Outcomes
After completion of the course, students should be able to:

- Understand the nature of software requirements and ways in which a requirements document
  might be organized and developed [ABET(a, b, c, f, i, j, k)].
- Undertake the preparation of a requirements document for a substantial piece of software and
  explore high-level design options for implementation [ABET(b, f, i, j, k)].
- Function effectively in teams [ABET (d)].
- Recognize the importance of learning beyond the classroom [ABET (h)]

Outcome Measurement
Students work in teams throughout the semester to generate a requirements document for a suitable
software effort as well as a preliminary high level design.

Course Topics
The nature of a requirements document, gathering information and background material, organizing
a requirements document, characteristics of good requirements documents, relationship of a require-
ments document to other documents, high-level architectures for software, considerations guiding the
choice of a software architecture

CAC Category Content

5 Data Structures
5 Algorithms
2 Software Design
- Computer Organization & Architecture
1 Programming Languages